

<b>REPORT DOCUMENTATION PAGE</b>			<b>Form Approved</b> <b>OMB No. 0704-0188</b>		
<small>Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Service, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.</small> <b>PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.</b>					
<b>1. REPORT DATE (DD-MM-YYYY)</b> 03-05-2013		<b>2. REPORT TYPE</b> Master of Military Studies Research Paper		<b>3. DATES COVERED (From - To)</b> September 2009 - April 2010	
<b>4. TITLE AND SUBTITLE</b> The Unlikely Success of the Soviet Union on the Eastern Front During World War II			<b>5a. CONTRACT NUMBER</b> N/A		
			<b>5b. GRANT NUMBER</b> N/A		
			<b>5c. PROGRAM ELEMENT NUMBER</b> N/A		
<b>6. AUTHOR(S)</b> Heppler, Christopher U., Major, USMC			<b>5d. PROJECT NUMBER</b> N/A		
			<b>5e. TASK NUMBER</b> N/A		
			<b>5f. WORK UNIT NUMBER</b> N/A		
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> USMC Command and Staff College Marine Corps University 2076 South Street Quantico, VA 22134-5068			<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b> N/A		
<b>9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> N/A			<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b> N/A		
			<b>11. SPONSORING/MONITORING AGENCY REPORT NUMBER</b> N/A		
<b>12. DISTRIBUTION AVAILABILITY STATEMENT</b> Unlimited					
<b>13. SUPPLEMENTARY NOTES</b> N/A					
<b>14. ABSTRACT</b> Traditionally, Western accounts of the Soviets' conduct on the Eastern Front paint the Red Army as incompetent. These accounts indicate the Soviets' victory over the technically and tactically superior German Wehrmacht and Luftwaffe was due to the Red Army's overwhelming numbers and their disregard for the human cost to their own citizens. Histories and accounts of the Great Patriotic War from the eastern perspective became available to western scholars after the fall of the Soviet Union. Historians such as David Glantz and Richard Overy lead the vanguard in analyzing and synthesizing the new material in order to give a more objective account of events on the Eastern Front during World War II. An accurate portrayal of events may be gleaned from an amalgamation of Eastern and Western accounts present an accurate portrayal of events. The Soviet military, economy, and society recovered from the brink of collapse, enabling victory against the German invaders. Strategic Red Army victories shifted the initiative to the Soviets. Soviet industry, disrupted by the German invasion, reconstituted itself and began surpassing German production. Soviet society stayed intact and provided the personnel required to maintain the military and economic war effort. These factors were paramount to the Soviet triumph over the Germans.					
<b>15. SUBJECT TERMS</b> Soviet, Evacuation, Eastern Front, Economy, DIME					
<b>16. SECURITY CLASSIFICATION OF:</b>		<b>17. LIMITATION OF ABSTRACT</b>	<b>18. NUMBER OF PAGES</b>	<b>19a. NAME OF RESPONSIBLE PERSON</b> Marine Corps University / Command and Staff College	

INSTRUCTIONS FOR COMPLETING SF 298

<b>a. REPORT</b> Unclass	<b>b. ABSTRACT</b> Unclass	<b>c. THIS PAGE</b> Unclass	UU		<b>19b. TELEPHONE NUMBER</b> <i>(Include area code)</i> (703) 784-3330 (Admin Office)

*United States Marine Corps  
Command and Staff College  
Marine Corps University  
2076 South Street  
Marine Corps Combat Development Command  
Quantico, Virginia 22134-5068*

MASTER OF MILITARY STUDIES

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**TITLE:** The Unlikely Success of the Soviet  
Union on the Eastern Front During World War II

SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF MILITARY STUDIES

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AY 12-13

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## *Table of Contents*

	Page
TITLE PAGE .....	1
DISCLAIMER .....	2
TABLE OF CONTENTS.....	3
ACKNOWLEDGEMENTS .....	4
EXECUTIVE SUMMARY .....	5
INTRODUCTION .....	6
THE ECONOMY OF WAR: THE EVACUATION OF SOVIET INDUSTRY EAST OF THE URALS.....	7
THE SOVIET MILITARY AND THE REBIRTH OF THE RED ARMY AND AIR FORCE.....	12
The Initial State of the Red Army in 1941: A Recipe for Catastrophe.....	12
The Turning Point .....	16
INFORMATION: PROPAGANDA, DECEPTION, AND DECISION MAKING .....	19
SOVIET DIPLOMACY: THE GAP BETWEEN EAST AND WEST .....	20
ANALYZING THE FACTORS .....	22
The Success of the Evacuation .....	22
Soviet Industry: The Enabler .....	23
The Recovery of the Red Army and VVS .....	24
Diplomacy and Information: Catalysts for Victory .....	25
Conclusion .....	27
ENDNOTES .....	28
BIBLIOGRAPHY .....	30

### *Acknowledgements*

I would like to thank the many people who assisted me in completing this project. My wife Katja spent many hours reviewing and editing each draft and took care of many day-to-day tasks in our household. I could not imagine completing this paper without her assistance. The staff at the Gray Research Center played a crucial role in finding obscure documents that were critical in forming my thesis. Dr. Linda Di Desidero provided advice that was essential to refining the final draft. I would especially like to thank Dr. Paul Gelpi for his the mentorship, guidance, encouragement, and granting me the time necessary to complete this paper. His enthusiasm regarding my topic and research helped keep me focused on completing this project.

## **Executive Summary**

**Title:** The Unlikely Success of the Soviet Union on the Eastern Front During World War II

**Author:** Major Christopher Heppler, United States Marine Corps

**Thesis:** The Soviets ability to rally from imminent defeat to triumph against the Germans on the Eastern front was due to its capacity to reorganize its military command structure, refit its mechanized and air forces with modern vehicles and reconstitute severe losses in manpower and equipment.

**Discussion:** Traditionally, Western accounts of the Soviets' conduct on the Eastern Front paint the Red Army as incompetent. These accounts indicate the Soviets' victory over the technically and tactically superior German Wehrmacht and Luftwaffe was due to the Red Army's overwhelming numbers and their disregard for the human cost to their own citizens. Histories and accounts of the Great Patriotic War from the eastern perspective became available to western scholars after the fall of the Soviet Union. Historians such as David Glantz and Richard Overy lead the vanguard in analyzing and synthesizing the new material in order to give a more objective account of events on the Eastern Front during World War II. An accurate portrayal of events may be gleaned from an amalgamation of Eastern and Western accounts present an accurate portrayal of events. The Soviet military, economy, and society recovered from the brink of collapse, enabling victory against the German invaders. Strategic Red Army victories shifted the initiative to the Soviets. Soviet industry, disrupted by the German invasion, reconstituted itself and began surpassing German production. Soviet society stayed intact and provided the personnel required to maintain the military and economic war effort. These factors were paramount to the Soviet triumph over the Germans.

**Conclusion:** The rapid reestablishment of Soviet war industries granted the capacity to outproduce the Germans and was the most significant enabler of the resurgent Red Army and VVS. Without the evacuation, the Soviet economy would have collapsed, unable to supply the war effort due to the loss of industrial capacity.

Nazi Germany initiated a quest for dominance and racial purity in Eastern Europe, the destruction of an ideological enemy, and the expansion of “Lebensraum” for Germany by invading the Soviet Union in 1941. To the Germans, the Soviet Union appeared to be weak militarily and backward economically, and they estimated a quick victory. Despite obvious signs of the imminent invasion, the Soviets were ill-prepared for the German onslaught. The Soviets lost hundreds of thousands of troops to the massive German encirclements. The German Luftwaffe crippled Soviet aviation capacity in Eastern Europe, destroying thousands of aircraft in the first week.<sup>1</sup> Although the Germans were stopped short of the Soviet capital in 1941, the Wehrmacht and Luftwaffe had dominated the first part of the war. Military historian Frederick Kagan accurately addresses the initial historical understanding of the struggle on the Eastern Front, stating “The Germans were not so competent nor the Soviets so incompetent as earlier histories make out.”<sup>2</sup> The Soviet military, economy, and society recovered from the brink of collapse to turn fate against the German invaders. Strategic Red Army victories shifted the initiative to the Soviets. Soviet industry disrupted by the German invasion reconstituted itself and began surpassing German production. Soviet society stayed intact and provided the personnel required to maintain the military and economic war effort. The Soviets ability to rally from imminent defeat to triumph against the Germans on the Eastern front was due to its capacity to reorganize its military command structure, refit its mechanized and air forces with modern vehicles and reconstitute severe losses in manpower and equipment.

The examination of the “Great Patriotic War” in terms of Soviet economy, military, information, and diplomacy facilitates the diagnosis of primary factors that influenced the outcome of the conflict. The following analysis will determine the extent to which each of these factors contributed to the Soviet Union’s success against Germany on the Eastern Front. The



lessons learned from the Soviets' unlikely victory are critical for today's military leaders to understand and apply in order to take advantage of similar opportunities and avoid comparable mistakes in future conflicts.

### *The Economy of War: Evacuation of Soviet Industry East of the Urals*

One of most significant factors of the Soviet victory over the Germans was its ability to outproduce its opponent. The Soviet victory in World War II had as much to do with the economic production to support the war effort as the military victories on the battlefield. The fact that the Soviet Union had any significant industrial capacity at the end of 1941 was unexpected considering that Germany held most of the vital industrial areas west of the Ural Mountains.

The Soviets recovered from the initial German invasion and preserved their industrial strength due to the timely mass evacuation of major industry and labor to safe havens east of the Urals. This evacuation was one of the most important and least known operations during World War II.<sup>3</sup> Several elements contributed to the success of the evacuation of Soviet industry and labor. The Soviet civilian bureaucracy handled the evacuation with relative efficiency. Their leadership had the authority and means to act decisively to complete the ends.<sup>4</sup> Soviet leadership installed plenipotentiaries and inspectors to ensure proper execution and information flow to higher headquarters. The natural flow of troops traveling to the front was from the east to the west, thus, empty railcars were able to be filled with evacuating industrial equipment for east-bound travel. Also, the Germans failed to target evacuating industrial areas with strategic bombing.

The Soviets formed the Council of Evacuation on 24 June, two days after the initial German invasion. The establishment of the Council of Evacuation laid the initial organizational structure for the complex operations required to move Soviet industry and work force. Additionally, the Council of People's Commissars (Sovet Narodnykh Kommissarov) recognized that the prewar plan to mobilize the economy would be insufficient and ordered a revised plan to mobilize the entire Soviet economy. As early as 23 June, key factories like the Kirov tank factory in Leningrad and the armor steel rolling mill in Mariupol began preparations for evacuation. This efficient, organized response was the exception and not the rule during June of 1941. In contrast to the relative efficiency of the civilian authorities with regard to the evacuation, the Soviet military, suffering from a confusing command structure and indecisive leadership, took nine days to form the State Committee for Defense (Gosudarstvennyi Komitet Oborony - GKO).<sup>5</sup> "Prompt action in setting up an administrative framework to coordinate and manage the evacuation process stands in marked contrast to virtually every other aspect of the war in its first days, where central initiatives were either wrong-headed and fraught with illusions, or entirely lacking"<sup>6</sup>

The Council on Evacuation had the authority and means to develop and implement plans. Stalin had the final word on all matters, but his attention primarily focused on military. The chairman of the Council on Evacuation was L.M. Kaganovich, and his deputies were A.N. Kosygin and N.M. Shvernik. Kaganovich was the People's Commissar of Means of Communication (Narodnyi Kommissariat Putei Soobshchenii - NKPS) a member of the Politburo, and a favorite of Stalin. Shvernik was the head of the All-Union Central Council of Trade Unions (Vseoyuznyi Tsentral'nyi Sovet Professional'nykh Soyuzov - VTsSPS) and had significant influence on the Soviet labor force (Shvernik would eventually take over the position

of chairman on the Council after the pressure of the responsibility and the situation rendered Kaganovich ineffectual). Kosygin was the head inspector of the Council on Evacuation, ensuring plans were executed at the lower echelons as the council intended. Another important member of the Council on Evacuation, N.F. Dubrovin, was in charge of the Freight Administration of the NKPS.<sup>7</sup> The fact that these key leaders on the Council of Evacuation were in charge of the organizations and means that would execute the evacuation expedited the transition from planning to execution.

The Council on Evacuation divided into three functional areas – evacuation of industry, evacuation of population, and transportation. It established plenipotentiaries in relevant Commissariats in order to facilitate the execution of the evacuation and obtain accurate information on progress. NKPS and VTsSPS executed the evacuation plan in conjunction with local state and county industries and population once the Council of Evacuation approved the proposal. In this way the Council pushed down the responsibility to execute the evacuation to the lowest level.<sup>8</sup>

The evacuation of the population proved to be more challenging due to high food, clothing, shelter, salary, and medical care needs for evacuees. The Council on Evacuation was responsible for administering major evacuation points, again leaving supply and operation of the sites to local authorities. Evacuation points centered on key rail junctions and provided the 25 million evacuees with necessities and facilitated their movement east. Priority of the evacuation went first to equipment, raw materials, and other means of industry. Engineers and essential technicians were the next priority. Accounts do show the Soviets made an effort to evacuate the young, elderly and weak, but historical sources indicate the priority was to maintain the labor force not to save the population from German occupation.<sup>9</sup>

A major hindrance to evacuation operations was the lack of transportation assets. Rail cars and railroad equipment were in short supply as were skilled railroad workers. Additionally, the composition of the type of cars (passenger and/or freight) often did not match the intended cargo. The NKPS developed a complicated system to free up needed cargo space by unloading cars at intermediate depots west of the Urals for further sorting and prioritizing. This system, while freeing up space for important cargo, slowed down the quantity of equipment moving through stations. Also, some of the offloaded cargo, especially fuel, was consumed locally and never reached the factories east of the Urals.<sup>10</sup>

The evacuation was also complicated because of military requirements. The GKO had priority with regard to transportation. Their plenipotentiaries could override the Council on Evacuation's directives. Even with this authority, the GKO could not entirely avoid disruptions that hindered military operations. An Evacuation in the Trans-Caucasus region during 1942 clogged the rail lines and "deprived [the Soviets] of the ability to maneuver troops and restricted the arrival of supplies."<sup>11</sup> One natural facilitator of the evacuation with regard to the military was the general movement of troops from the east to the west. Railcars full of soldiers dropped off their cargo at the front and loaded the empty cars with freight and passengers heading east.

The scope of the economic capacity at stake was immense. "On the territory occupied by the Germans at their furthest penetration there were over 31,000 industrial enterprises, including 749 heavy- and medium-machine building plants, 61 large-scale power plants, 90,000 collective farms, 1,876 giant Sovkhozy (enormous collective farms), 2,890 Machine Tractor Stations (MTS), 65,000 kilometers of railway, and 88 million people – about 40 per cent of the pre-war population."<sup>12</sup> The results would have been disastrous for the Soviet war effort if critical tank,

aircraft, and ammunition factories as well as the labor and conscript force in the region had not been evacuated.

The area east of the Ural Mountains was not conducive to supporting industry. Even though Stalin's third five-year plan began to develop the region's infrastructure, it was still inadequate for the massive demand for energy that the industries from the west would require. The evacuation of power plants and supporting equipment was critical despite the relatively small portion of the evacuation. The electrical generation and communications capability east of the Urals was significantly enhanced by the evacuated power industry.<sup>13</sup>

Soviet historical accounts portray a rosy picture of the evacuation regarding the reestablishment of industries east of the Urals. Reports state that about half of the 700 industries evacuated in the first months following the invasion were either fully or partially mission capable. Additionally, Soviet accounts indicated that factories were usually reestablished in six to eight weeks. These figures are likely optimistic regarding the general evacuation and reconstitution of industry based on an objective analysis of the data. The data does support the fact that critical military industry was reconstituted quick enough to produce the supplies and equipment required to hold off the German Wehrmacht during 1941 and 1942. This is a surprising accomplishment considering the massive Soviet attrition during this period; "a Soviet tank or aircraft had a life expectancy of 3 months during 1941-1942, losing one-sixth of their aircraft and one-tenth of their tanks every week."<sup>14</sup>

A significant factor in the success of the evacuation was that it was not specifically targeted by the Germans. The German Luftwaffe worked under Hitler's Directive Number 21, which stated their tasks were to destroy the Soviet air force to prevent it from hampering the German advance and to ground attack support to the Wehrmacht. The directive specifically

forbade attacks on Soviet industry because the Germans assumed that the industrial areas would be captured and the Germans wanted the industries intact. The Germans did attempt to use strategic bombing to destroy railways in order to isolate cities, but the operations were generally unsuccessful in hampering the evacuation process.<sup>15</sup> Unhindered by German interference, the Soviet Union produced over 13,000 tanks and 15,000 aircraft in the last half of 1942. This was the same amount or more than the Germans produced through the entire year.<sup>16</sup> This feat is even more impressive considering the Soviets moved 2,500 major war industries and factories west of the Ural Mountains in 1941 and were reestablishing their entire economy.<sup>17</sup> The economic resurgence of Soviet Union provided the munitions and equipment that enabled its military to halt the German advance and gave the Red Army the capacity to conduct deep battle operations.

#### *The Soviet Military and the Rebirth of the Red Army and the Air Force*

The Soviet military was in a tumultuous state as hostilities broke out with German. Stalin's purging of the Soviet officer corps that began in the late 1930's continued through the onset of the war. Efforts to modernize Soviet equipment sowed the seeds of confusion. Military hardware consisted of an inefficient mix of old and new equipment. The logistics infrastructure to support new equipment was woefully inadequate. Stalin began to put more faith in proven leaders like Field Marshal Georgy Zhukov who resurrected Soviet operational art. Soviet industry began to produce modern equipment of sufficient quality and in sufficient quantity to enable the proper execution of the Soviet's resurgent deep battle doctrine.

### *Initial State of the Red Army in 1941: A Recipe for Catastrophe*

German preparations for the invasion of the Soviet Union became evident to Soviet intelligence. Stalin blatantly ignored solid intelligence from multiple sources and refused to heed his generals' call for preparations in a vain effort to maintain peace with Germany. A week prior to the invasion General Zhukov implored Stalin to allow the mobilization of Soviet regular forces, but Stalin refused because he believed the action equated to initiating war with Germany.<sup>18</sup> Stalin ordered a special readiness state (*osobo ugrozhaemyi voennyi period*) in April of 1941, but this state still restricted mobilization of forces until war was imminent. His desire to ensure the defense of the Soviet Union gave way to his desire for peace and unfaltering trust in his own instincts. "The dichotomy between Stalin's frantic desire for peace (at least in 1941) and his desire to undertake prudent defensive measures to stave off defeat if war occurred produced confusion and paved the way for the catastrophic defeat of the Red Army in 1941. The Soviets simultaneously initiated partial internal mobilization while prohibiting their most ready forces in the border military districts from undertaking measures vital for their own survival."<sup>19</sup> The Red army was not prepared for the coming war.

The Soviet military was in a state of transition in 1941. Since the 1930s the Soviets made efforts to modernize equipment, reform training, explore new tactics, reorganize force structure and revamp defensive plans.<sup>20</sup> Unfortunately for the Soviets, the Germans struck during this vulnerable period of transformation. New modern equipment developed for the Red Army was sometimes better than that of their German counterparts. However, in June of 1941 the Soviets did not have the quantities, training, or logistic support systems to utilize the equipment to its fullest potential. Most Soviet mechanized corps fielded the obsolete T-26s. A corps' subordinate units were often garrisoned in different locations and could be separated by up to 100 kilometers.

This dispersion made it difficult to mass mechanized forces. Mechanized corps were large (over 30,000 soldiers) and unwieldy to command and control relative to their German Panzer counterparts. The dispersion of these units, task organization, obsolete equipment, inadequate logistics support, and size prevented them from conducting “large scale, independent penetration mission(s) into the enemy’s rear echelon.”<sup>21</sup> Operational art and the concept of the deep battle had fallen out of favor with Stalin after the sacking and execution of Marshal Mikhail Tukhachevsky. This contributed to the poor state of Soviet mechanized forces and strategy. Soviet infantry fielded understrength infantry divisions that were at about 60 percent strength.<sup>22</sup>

The Soviet Air Force (Voyenno-Vozdushnyye Sily – VVS) looked much like the Red Army with respect to preparation, equipment, training, and logistics support. It too was in the process of modernization. In the years prior to World War II “the VVS wrestled – often with minimal success – with the challenges of adapting new technologies and rapid expansion.”<sup>23</sup> The Soviets understood the need to transform the VVS into a modern air force on par with their potential adversaries in the West and East. Resources were devoted to creating airfields, developing tactics, creating logistics supply chains, and most of all, training of pilots and modernizing aircraft. In the prewar years, industry could not produce enough aircraft, the VVS could not adequately train new pilots, and, like the Red Army’s mechanized Corps, their organizational structure was cumbersome and not conducive to mobile warfare. The reorganization of the VVS into new air regiments shuffled pilots around. Out of 3,000 pilots slated for transition training, less than 1,000 received the requisite training. Experience, leadership, training, and flight hours were paltry in relation to their Luftwaffe counterparts. These factors contributed to the poor state of preparedness and morale of the VVS.



One of the most debilitating factors that affected the Soviet Armed Forces pre-World War II was Stalin's purging of the officer corps. By 1937, Stalin had consolidated power by intimidating and liquidating his political enemies. The last institution that remained untouched at the time was the Soviet military. Historically, the military was less enthusiastic about the communist ideology. Political commissars ensured that communist ideology and the State's intent were obeyed within each unit. This system, designed to keep military commanders in check, was no longer sufficient to quench Stalin's paranoia. He began sacking, arresting, imprisoning, and murdering his military officer corps. Roughly half of the 75,000 to 80,000 officers in the Red Army and VVS were imprisoned, sacked, or executed.<sup>24</sup>

The effects of the purges were disastrous. By May of 1941 the Red Army lacked 35 percent of its officers and over 70 percent held their billets for less than six months.<sup>25</sup> The fact that these purges proceeded through the early part of the war crippled the officer corps. "The matter was not only the guiltless death of hundreds of thousands of people, among whom were the most valuable specialists in all spheres of activity, including the military. Moreover, to a great extent the command cadre that survived the terror proved to be paralyzed by fear and lost the ability to reach independent decisions in the face of higher authorities."<sup>26</sup> Among the first casualties of the purges was Marshal Mikhail Tukhachevsky, one of the Soviets' leading military theorists. His innovative theory regarding operational art and the deep battle concept were now looked at as treasonous by commissars and most commanders. It was not until one of his disciples, Marshal Georgy Zhukov, executed the counter attack in the defense of Moscow that Stalin allowed operational art and the deep battle concept to return to the Soviet military lexicon.

In contrast to the Red Army, the German Wehrmacht and Luftwaffe were better equipped, trained, led, and were combat tested in previous Western campaigns. The Germans

were confident. They fielded a modern army of Panzer divisions and Luftwaffe fighters and bombers. They used this modern equipment, training, and tactics to validate their concept of Blitzkrieg in the West. Now they would mass their Armies and push east in order to complete the conquest of Europe. The Germans did have weaknesses that would manifest themselves later in the war. Although the Panzer divisions were well publicized, the majority of the Wehrmacht was foot mobile infantry. Also, logistics took a back seat in both the Wehrmacht and Luftwaffe. Supplies were often transported via horse. These factors would eventually prove detrimental to the German invaders.

The German preparations for war proceeded virtually unmolested by the Soviets. The Luftwaffe conducted aerial reconnaissance of the Soviet Union prior to hostilities. The Germans massed over 3 million troops along the Soviet frontier with only a modest mobilization to counter the threat. The rest of the world had little respect for the Soviets' ability to withstand the might of the Wehrmacht and Luftwaffe. The Germans were poised and prepared to execute OPERATION Barbarossa.

The state of both opponents sowed the seeds for resounding defeats for the Soviets in 1941. German Panzer divisions cut through ill-prepared Soviet defenses, circumventing Soviet mechanized corps in order to cut them off from ammunition and fuel. The Luftwaffe conducted a massive initial strike aimed at destroying the VVS on the ground. Stunned leadership in Moscow issued orders completely detached from the reality on the front. Soviet counter attacks were ill-planned and poorly coordinated, lacked air support, utilized obsolete tanks, were inadequately supplied, and therefore doomed before they passed the line of departure. By December of 1941, the Soviet Red Army lost over 4 million troops killed, wounded, or captured.<sup>27</sup> Their Mechanized corps lost 90 percent of their strength.<sup>28</sup> The VVS lost over 1,000

on the first day and close to 4,000 aircraft by the end of the first week.<sup>29</sup> December of 1941 marked the first serious attempt by Soviet leadership to utilize the strategy of deep operations married with operational art. The Soviets massed enough reserves to execute a successful counter attack in the defense of Moscow, preventing the capture of the Soviet capital and finally stopping the unrelenting German invasion.

### *The Turning Point*

The Soviet counter offensive stalled and its winter offensive ended unofficially in March of 1942. The Germans regained the initiative throughout the summer and fall of the year. The Red Army had handed the Wehrmacht its first significant defeats on the Eastern Front, but still did not have the capacity to exploit the victory. The weather improved and the Germans initiated their summer campaign, OPERATION Blau, aimed at taking the Caucus region from the Soviets. Again the Red Army and VVS suffered major defeats and endured appalling losses. But significant changes and new measures began to bear fruit for the Red Army and VVS. The overwhelming German victories against the Soviets exposed problems in the cumbersome force structures in the Red Army. Stavka (Soviet high military command) orders and combat losses forced the Red Army to employ smaller rifle division and brigade formations. These formations were easier to command for inexperienced Soviet Officers and performed better than their predecessors. The Stavka reformed the organization of the mechanized corps into panzer-division sized units that would eventually facilitate the Soviet deep battle strategy. The VVS force structure was reorganized into air armies in order to better support Red Army operational fronts. The Soviets enlarged and reorganized their Artillery unit and anti-tank units. The Stavka created its own strategic reserves.<sup>30</sup>

The reorganization, reinforcing, and reequipping of the mechanized forces was one of the most important aspects of the revival of the Red Army. The effort to revamp the mechanized force marked “a return to the pre-war concept of the deep operations.”<sup>31</sup> The Stavka also created more robust logistics and maintenance structures within these mechanized units.<sup>32</sup> Tank and mechanized corps were now designed, equipped, and supported to conduct mobile, limited penetration operations.

Equipping the Red Army was still a critical issue. The massive attrition during the first 18 months of the war could not be sustained by the Soviets. The disruption of the Soviet economy by the invasions significantly hampered war production in 1941 and the beginning of 1942. Soviet industry reestablished itself east of the Urals and remarkably produced 4,500 tanks, 3,000 aircraft, 14,000 guns, and 50,000 mortars by May of 1942.<sup>33</sup> These were not the obsolete tanks and aircraft the Red Army and VVS utilized at the onset of hostilities, but modern, evolving, and effective. The T-34 medium tank had better armor, was faster, and had a better gun than its German counterpart –the Panzer MK IV. The KV-1 heavy tank’s frontal armor was virtually impenetrable by any German gun, save the 88mm flak gun.<sup>34</sup> Designs like the MIG-3, YAK-1, and IL-2 Shturmovik were now produced in large enough quantities to make a difference in the air.<sup>35</sup> The Soviets copied heavy artillery designs from the Czechoslovakian Skoda Corporation and produced a plethora of gun and rocket artillery systems to support the units from the company to the corps.<sup>36</sup> Soviet small arms like the Mosin-Nagat carbines and PPSH machine pistols, both reliable and effective weapons, were now produced in sufficient quantities to adequately supply the Red Army.

The battle for Moscow in 1941 was a precursor to the battles for Stalingrad and Kursk. In all three cases Stalin allowed the shift from the spread out “broad front” approach and

embraced focused, deep operations, massing forces on a relatively narrow front. The difference in Stalingrad in 1942 and Kursk in 1943 was that the Soviets had the quantity and quality of equipment and personnel to properly execute and exploit the doctrine. Operational art and deep operations did not become cannon for the Soviets until 1944 and even then they would revert back to a broad front approach to warfare after successes in the West. In June of 1944 the Soviets showcased their resurgent doctrine and forces in OPERATION Bagration. Soviet mechanized forces exploited breakthroughs in Army Group Center lines. Soviet doctrine, couple with proper equipment, manpower, training, and leadership, now dominated the Germans on the Eastern Front. Soviet success in the information war facilitated its renewed ability to conduct deep operations and its successes gained equity on the political stage with their Western allies

#### *Information: Propaganda, Deception, and Decision Making*

The Soviet Union had existed as a Communist nation for over twenty years by the time the Germans invaded. Institutions were built to promulgate Communist ideology throughout every part of Soviet Society. Stalin used these mechanisms to solidify his cult of personality under the guise of Communism and the State. He and the Communist oligarchy controlled and manipulated information in order to control and manipulate the Soviet population. Stalin used organs like the People's Commissariat of Internal Affairs (Narodnyy Komissariat Vnutrennikh Del-NKVD) to enforce whatever message he wanted through brutal repression, inducing Soviet citizens to obey and comply with his edicts. Propaganda shifted for political expediency. In the Red Army the Soviets stoked hatred for the Germans and encouraged Russian nationalism while exacting harsh discipline on its soldiers. "The fact that neither collapse nor coup took place bore mute testimony to the ruthless effectiveness of Stalin's regime."<sup>37</sup>

Deception operations played an important role in Soviet doctrine and significantly altered the course of the war in favor of the Red Army and VVS. “Deception involved concealment, simulation, misinformation, and demonstrations or feints. All of these methods were contained in the single Russian word ‘maskirovka’.”<sup>38</sup> Soviet maskirovka played a critical role in several pivotal battles. The winter campaign in defense of Moscow, OPERATION Uranus that destroyed the German Sixth Army, the counter attack at Kursk, and OPERATION Bagration all owe their success in part due to the effective employment of maskirovka. The successful employment of maskirovka in the battle for Stalingrad deceived the Germans regarding the scale of the Soviet counter attack. The conditions on the Russian steppe were not conducive to hiding troop movements, equipment, or intentions. Rail lines in the vicinity were under German surveillance. Troops and equipment had to cross either the Volga or Don rivers to move into their battle positions. The Soviets disguised ammunition depots as farm houses and populated unused airfields with fake aircraft and gun emplacements. They built phony bridges and ferries to draw German fire away from actual crossing and landing sites. Unit newspapers spoke about defensive operations and preparation in order to account for troop movements in vicinity of the front. The Soviets waited until the last moment to transfer troops and equipment into their battle positions and conducted the movement.<sup>39</sup> Preparations for OPERATION Uranus effectively masked the movement of the million troops and proved crucial to the success of the counterattack.

### *Soviet Diplomacy: The Gap Between East and West*

In 1938, war in Europe seemed a question of “when” not “if”. Stalin was determined to exhaust all means to keep the Soviet Union out of the conflict. The Soviets and Nazis, who at

times used similar means to reach their goals, were both ideological enemies. In a memorandum Hitler showed only to select confidants, he claimed that war between the Marxists and the West was inevitable and that “no nation will be able to avoid or abstain from this historic conflict.”<sup>40</sup> The Soviets sought an alliance with the West in order to check possible German aggression. In April of 1939, the Soviets proposed “a Triple Alliance between Britain, France, and the USSR to guarantee the integrity of every state from the Baltic to the Mediterranean and to defend each other if attacked by Germany.”<sup>41</sup> Stalin believed at the time that the Western Democracies were stronger than the Germans, but years of distrust of Western powers made negotiations difficult. The fresh memory of British and French willingness to appease Hitler regarding the annexation of the Czechoslovakian Sudetenland made it difficult for the Soviets to trust any overture of a serious alliance against the Germans. The fact that the Western powers did not invite the Soviets to the Munich conference, where the fate of the Czechoslovakia was determined, only increased the distrust Stalin had for the West. The Soviets decided to consider other options.<sup>42</sup>

Britain and France knew that an agreement with the Soviet Union was essential to protect Poland and themselves if war did erupt in Europe, but balked at the terms. The French offered a diluted version of the treaty to the Soviets. The British, after procrastinating for six weeks, decided to enter into negotiations with the Soviets on their diluted version of the treaty. The Soviets read these overtures as further willingness of the West to appease the Germans and avoid conflict at all costs.

The Soviets began courting the Germans in secret, believing that the chance of a meaningful alliance with France and Britain was unlikely. The Soviets did make an attempt to form an alliance with the West in July of 1939. Again the British procrastinated in meeting with the Soviets. The meeting revealed to the Soviets that the West lacked the military power of the

Germans. The meeting also revealed the unwillingness to sign a definitive pact that would require France and Britain to come to the defense of the Soviet Union if they were attacked.<sup>43</sup>

The Soviet focus of diplomatic effort shifted toward Germany. The Soviets made a legitimate offer to the Germans and within days both parties signed the Ribbentrop-Molotov Pact. Its secret protocols handed over eastern Poland, the Baltic States, Finland, and parts of Romania (Moldova) into the Soviet Sphere of influence.<sup>44</sup> The pact gave Germany the security in the East to pursue war with Poland and the West. It allowed the Soviets to expand their empire eastward and bought them time to prepare their economy and military for war in Europe.

### *Analyzing the Factors*

A review of how the Soviet Union combined elements of national power as well as external variables affecting the conflict is necessary to understand the factors that contributed to the Soviet victory on the Eastern Front. Understanding Soviet diplomatic actions, information operations, military strategy, and economic capacity in the context of World War Two give contemporary military officers the insight to take advantage of similar opportunities and avoid similar pitfalls.

### *The Success of the Evacuation*

There were many contributing elements to the success of the evacuation. The leadership in the Council on Evacuation had the authority to act. Council members already held key positions in the Soviet transportation and labor commissariats. They empowered plenipotentiaries to supervise the execution of the Council's centralized plan and keep them informed of progress. The organizational structure and bureaucracy within the transportation



and labor commissariats was familiar to the Soviets and required relatively little change in order to execute the evacuation. The NKPS and resident authorities tasked with the execution of local evacuations were involved in the planning process. These factors “made possible rapid transition from the elaborate plan to execution.”<sup>45</sup> The Council on Evacuation is reminiscent of today’s USTRANSCOM. It coordinated detailed strategic movements within an echeloning system over vast distances using information that resembles today’s Time-Phased Force and Deployment Data (TPFFD).

The Council on Evacuation and the NKPS reacted relatively quickly to the invasion compared to their counterparts in the Red Army. The fact that any purges that affected the NKPS and VTsSPS happened in the early 1930s gave these organizations time to recover leadership and experience by the onset of war. In contrast, the Red Army Officer Corps remained decimated and their purges continued through the beginning of the conflict.

Hitler’s decision specifically forbidding the Luftwaffe’s use of strategic bombing to interdict the evacuation facilitated the escape of Soviet industry and showcased the Germans’ weakness in efficiently tying operational objectives to strategic goals. Ironically, the Germans committed the inverse error in the Battle for Britain, forgoing critical Royal Air Force infrastructure, spending their resources attacking industry and civilian targets.

### *Soviet Industry: The Enabler*

The evacuation gave Soviet industry a safe haven for production. Industry’s production enabled the Red Army and VVS to fight. Soviets’ centrally planned economy did not have to deal with private capital interests and could direct the action of industry at will. The “5 Year Plans” from the 1920s and 1930s succeeded in drawing in peasants from the countryside and

built an industrial base for the Soviet Union. Soviet workers were able to endure harsh conditions induced by the necessity of war because they were accustomed to harsh working conditions imposed on them first by the Tzars and then by the Communists.<sup>46</sup>

The quality and quantity of the equipment being produced by Soviet industry by the end of 1942 was instrumental not only in sustaining the Red Army through horrible attrition, but also in empowering the Red Army and VVS to pursue their doctrine of deep operations. “By early 1943, the red army had a clear superiority in weapons that increased as the war progressed. The Soviet Union, with an economy severely disrupted by the occupation of its most productive land, analogous to the occupation of the United States east of the Mississippi, was able to outproduce Germany.”<sup>47</sup> Arguments persist over the turning point of the war for the Soviets. Many point to the Battle of Moscow or Stalingrad or Kursk. What is apparent is that the drastic increase in war production by the Soviets during the last six month of 1942 marks the economic turning point of the war.

### *The Recovery of the Red Army and VVS*

The Red Army was in a state of transition preceding the war. David Glantz in his book *When Titans Clash* uses the term “institutional surprise” to describe the Soviet failure in 1941.<sup>48</sup> Modernization and the purges sowed confusion and crushed morale. Soviet leadership refused to allow proper preparation for the invasion. These factors facilitated the unprecedented German victories in 1941.

The Soviets’ recovery was due in part to several factors. Soviet leadership understood that their empire was large and its protection required them to shift military force. The Red Army learned this in World War I and more recently during its conflict with Japan before World

War II. The Soviets would draw troops from the east to support the key counter offensive at Moscow in 1941 (when the attack on Pearl Harbor and the United States' declaration of war on Japan gave Stalin and the Soviets confidence that the Japanese would not attack in the east) and OPERATION Uranus in 1942.

The Soviets displayed a vast capability to recuperate from the severe manpower losses, especially in 1941 and 1942. Reconstituting field forces was facilitated by the pre-existing reserve structure and mobilized Soviet society. Factories east of the Urals were now being operated by mostly women, children, and old men, freeing up able bodied men for the Red Army. Additionally, equipment from the Allies' Lend-Lease program was built in the West, freeing up more Soviet manpower that they would otherwise require to maintain their economy.

Soviet equipment was robust and simple. The Soviets built equipment to be used by uneducated personnel while the Germans built equipment to be run by technicians. While their equipment was often not refined by Western standards, it was effective. The modern tanks, aircraft, and guns produced by Soviet industry were the key component in the Soviets' effective employment of their deep battle doctrine.

### *Diplomacy and Information: Catalysts for Victory*

The Soviets had to seek allies from ideological rivals, either the capitalists or the fascists. Their choice was understandable based on the apathetic response of Western powers to agree to a defensive pact with the Soviets and the relatively weak military power the West could generate. Open talks with Britain and France had the effect of driving Germany to seek a Pact with the Soviets in order to put a wedge between Moscow and the West as well as expand into Poland

unhindered. But the Ribbentrop-Molotov Pact only bought time – time that the Soviets did not spend efficiently in preparation for the German invasion.

Soviet military victories granted the Soviets diplomatic capital with the West. Lend-Lease support continued to increase and was more tailored to Soviet needs. After the victory at Kursk, the second front that Stalin asked for would be hard for the West to deny. The Soviets maintained political advantage by reminding the West of the cost of victory on the Eastern Front. Western powers acknowledged Soviet sacrifice relative to their own losses and did not want to risk war with the Soviets who occupied most of Eastern and Central Europe.

The Soviets' performance in their war with Finland coupled with the purges of the officer corps signaled to the Germans that the Red Army would be easily defeated. The German military's previous experience training and experimenting with the Soviets also left German leadership unimpressed with Soviet capabilities. Ideologically, the Germans drastically miscalculated the will and power of Soviet leadership. Soviet propaganda leveraged hatred for the Germans and love of the motherland to embolden citizens and soldiers to exhaust all means. Stalin's order 227 "Ni Shagu Nazad" (not a step back) instilled a new level of fatalism in his soldiers.

Soviet maskirovka played a critical role in several key battles, successfully masking the scope of Soviet plans. Soviet deception operations were another key enabler of its deep battle doctrine. The critical victories at Moscow, Stalingrad, and Kursk were essential in seizing the initiative from the Germans and were successful in large part due to the Soviets' ability to mask preparation for massive counter-attacks.

## *Conclusion*

The evacuation was not perfect: confusion and inefficiencies abounded, especially in 1941. The Soviets succeeded in prioritizing the evacuation, reconstitution, and streamlining of their most important war industries. The Soviet Union's industrial production in 1942 is a testimony to its success. The rapid reestablishment of Soviet war industries granted the capacity to outproduce the Germans and was the most significant enabler of the resurgent Red Army and VVS. Without the evacuation, the Soviet economy would have collapsed, unable to supply the war effort due to the loss of industrial capacity. Without the tanks and aircraft to support the Red Army's mechanized forces and VVS, Soviet deep battle doctrine would have remained ineffective.

The critical lesson gleaned from the analysis of the Soviet victory revolves around the economics of war. A nation's ability to safeguard its capacity to wage war is paramount during a conventional conflict against a peer adversary. This seemingly evident point was lost on German leadership, who forbade the Luftwaffe from specifically targeting the Soviet evacuation. The Wehrmacht and the Luftwaffe focused primarily on destroying the Red Army, underestimating the ability of the Soviets to recuperate losses. The Germans' miscalculation of the Soviets' capacity to sustain casualties was exacerbated by the Soviets' willingness and success in sacrificing blood for time. The Soviets, driven by the existential threat to their existence west of the Urals, endured the massive sacrifice of Soviet troops, civilians, and war equipment, enabling the evacuation of industry, material, and manpower east of the Urals. The evacuation, in turn, provided the safe haven for their war-making industry necessary to sustain the fight against the Germans. The lack of coherent German operations targeting the Soviet economic capacity to wage war was the Germans' critical failure and facilitated Soviet victory.

## Endnotes

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- <sup>3</sup> Ibid., 388.
- <sup>4</sup> Mark Harrison and John Barber, *The Soviet Home Front: A Social and Economic History of the USSR in World War II*. (New York, NY: Longman, 1991).
- <sup>5</sup> John Erikson, *The Road to Stalingrad*, (London: Panther Books, 1985), 178-9
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- <sup>7</sup> F. Kagan, "The Evacuation of Soviet Industry in the Wake of 'Barbarossa': A Key to Soviet Victory. *The Journal for Slavic Studies*, 8, No. 2 (June 1995): 389-90.
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- <sup>9</sup> F. Kagan, "The Evacuation of Soviet Industry in the Wake of 'Barbarossa': A Key to Soviet Victory. *The Journal for Slavic Studies*, 8, No. 2 (June 1995): 393-5.
- <sup>10</sup> A. Piloakov, *Eshelony idut na vostok: iz istorii perebazirovaniia proizoditel' nykh sil SSSR v 1941-1942 gg* (Moscow: Nauka, 1966), 210.
- F. Kagan, "The Evacuation of Soviet Industry in the Wake of 'Barbarossa': A Key to Soviet Victory. *The Journal for Slavic Studies*, 8, No. 2 (June 1995): 396-7.
- <sup>11</sup> F. Kagan, "The Evacuation of Soviet Industry in the Wake of 'Barbarossa': A Key to Soviet Victory. *The Journal for Slavic Studies*, 8, No. 2 (June 1995): 397.
- <sup>12</sup> Ibid., 401.
- <sup>13</sup> Ibid., 401-2.
- <sup>14</sup> Mark Harrison and John Barber, *The Soviet Home Front: A Social and Economic History of the USSR in World War II*. (New York, NY: Longman, 1991). 181.
- <sup>15</sup> Ibid., 406-7.
- <sup>16</sup> Richard Overy, *Russia's War: A History of the Soviet War Effort: 1941-1945*, (New York, NY: Penguin Books, 1998), 171.
- <sup>17</sup> Ibid., 170.
- <sup>18</sup> Ibid., 69-71
- <sup>19</sup> David Glantz and Jonathan House, *When Titans Clashed: How the Red Army Stopped Hitler*, (Lawrence, KS: University Press of Kansas, 1995), 26.
- <sup>20</sup> Ibid., 44.
- <sup>21</sup> Ibid., 34.
- <sup>22</sup> Ibid., 34-35.
- <sup>23</sup> Von Hardesty and Ilya Grinberg, *Red Phoenix Rising: The Soviet Air Force in world War II*, (Lawrence, KS: University Press of Kansas, 2012), 14.
- <sup>24</sup> David Glantz, *Colossus Reborn: The Red Army at War, 1941-1943*, (Lawrence, KS: University Press of Kansas, 2005), 466-8.
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- <sup>25</sup> David Glantz, *Colossus Reborn: The Red Army at War, 1941-1943*, (Lawrence, KS: University Press of Kansas, 2005), 467.
- <sup>26</sup> Ibid., 466.
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- <sup>28</sup> David Glantz and Jonathan House, *When Titans Clashed: How the Red Army Stopped Hitler*, (Lawrence, KS: University Press of Kansas, 1995), 51.
- <sup>29</sup> Alexander Hill, *The Great Patriotic War of the Soviet Union, 1941-45*, (New York, NY: Routledge, 2009), 41.

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- <sup>31</sup> David Glantz and Jonathan House, *When Titans Clashed: How the Red Army Stopped Hitler*, (Lawrence, KS: University Press of Kansas, 1995), 101-2.
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- <sup>33</sup> David Glantz and Jonathan House, *When Titans Clashed: How the Red Army Stopped Hitler*, (Lawrence, KS: University Press of Kansas, 1995), 101.
- <sup>34</sup> Ibid., 36.
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- <sup>36</sup> Walter Dunn, *Stalin's Keys to Victory: The Rebirth of the Red Army*, (Westport, CT: Praeger Security International, 2006), 31.
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- <sup>38</sup> Bruce Pirnie, *Soviet Deception Operations in World War II*, (Washington, DC: US Army Center of Military History, 1985), 1.
- <sup>39</sup> Ibid., 6-7.
- <sup>40</sup> Richard Overy, *Russia's War: A History of the Soviet War Effort: 1941-1945*, (New York, NY: Penguin Books, 1998), 34-35.
- <sup>41</sup> Richard Overy and Andrew Wheatcroft, *The Road to War, rev.ed.*, (New York, NY: Penguin Books, 1999), 240- 242.
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- <sup>43</sup> Ibid., 242-243
- <sup>44</sup> Richard Overy, *Russia's War: A History of the Soviet War Effort: 1941-1945*, (New York, NY: Penguin Books, 1998), 48-50.
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